

United States Department of the Interior  
National Park ServiceNational Register of Historic Places  
Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

## 1. Name of Property

historic name Gaithersburg Latitude Observatory

other names/site number \_\_\_\_\_

## 2. Location

street & number 100 DeSellum Avenue☐ not for publicationcity, town Gaithersburg Latitude Observatory☐ vicinitystate Marylandcode MDcounty Montgomerycode 031zip code 20877

## 3. Classification

## Ownership of Property

- ☐ private  
☒ public-local  
☐ public-State  
☐ public-Federal

## Category of Property

- ☒ building(s)  
☐ district  
☐ site  
☐ structure  
☐ object

## Number of Resources within Property

## Contributing

1  
1  
5  
7

## Noncontributing

2 buildings  
       sites  
       structures  
       objects  
2 Total

Name of related multiple property listing: \_\_\_\_\_

Number of contributing resources previously  
listed in the National Register 9

## 4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this  
☐ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the  
National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.  
In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of certifying official \_\_\_\_\_

Date \_\_\_\_\_

State or Federal agency and bureau \_\_\_\_\_

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official \_\_\_\_\_

Date \_\_\_\_\_

State or Federal agency and bureau \_\_\_\_\_

## 5. National Park Service Certification

I, hereby, certify that this property is:

- ☐ entered in the National Register.  
☐ See continuation sheet.  
☐ determined eligible for the National  
Register. ☐ See continuation sheet.  
☐ determined not eligible for the  
National Register.  
☐ removed from the National Register.  
☐ other, (explain:) \_\_\_\_\_

Signature of the Keeper \_\_\_\_\_

Date of Action \_\_\_\_\_

6. Function or Use

Historic Functions (enter categories from instructions)  
Research Facility

Current Functions (enter categories from instructions)  
Research Facility

7. Description

Architectural Classification  
(enter categories from instructions)  
  
no style

Materials (enter categories from instructions)  
  
foundation concrete, fieldstone  
walls wood  
  
roof wood  
other

Describe present and historic physical appearance.

The Gaithersburg Latitude Observatory is situated west of the southern end of DeSellum Avenue and south of James Street on a 2.3 acre tract in the city of Gaithersburg, Maryland.<sup>1</sup>

The Gaithersburg Latitude Observatory is a small, 13-foot-square one-story building. There is a wooden louver-covered gable roofed entrance porch on the west facade. The original porch door is missing. There is a small shed-roofed ell on the east side. The building has a concrete mortar and fieldstone foundation. The gable roof consists of two sections that move apart on wheels exposing the center interior of the building. The roof is constructed of inch tongue-and-groove board. In the eaves, the rafter ends are cut back and covered by a tilted fascia board. A decorative wooden five-pointed star is mounted in the center of each gable end.

The inner wall plates consist of double two by eights resting on edge. On the north and south walls, these plates extend about three feet beyond the building to support the roof in its open position. These extended plates are capped with four by fours supporting the metal U-track in which the roof wheels travel. Parallel to the U-track, about six inches into the building and down about four inches, are a pair of one-inch-thick iron rods. These rods extend the length of the north and south plates, piercing the east and west walls. They are moved from inside the building. Each section can be moved independently by a rope and pulley system. There are two decorated ventilators, one on each roof section near the center of the building. As a part of the decoration, a metal five-pointed star caps each ventilator.

The building is double walled. The inner wall consists of four by fours overlaid with tongue and groove boards on the inside. There is a nine-inch space between the walls. The outer wall consists of four by fours covered on the outside with horizontal framed wooden louvers. The outside walls are connected to the inner walls only at the building corners, the entrance and the door to the east ell. The inner and outer sills appear to rest on the foundation. The exterior wall ends at the ground in a bevelled wooden water table. There is a double floor in the main room with a concrete pyramid-shaped pier in the center

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of the dirt floor that is sunk four feet below the floor and tapers as it extends up to about waist height. The observing telescope and instruments were mounted on it. The telescope is now in storage in Corbin, Virginia. The southern wall has a central section of two by three feet which can be lowered to expose two sliding wooden sashes in the inner wall.

About 200 feet to the south of the observatory is the Meridian Mark Pier (azimuth marker), a green metal pagoda-shaped object about four feet high by two feet square, which was used to align the Zenith Telescope.

Five Coast and Geodetic Survey monuments are located on the property of the observatory. These monuments establish exact geographic longitude and latitude positions, elevation above sea level, and the direction of the magnetic north field of force. The Observatory RM-1 monument, dated 1966 is still used by the National Oceanographic and Atmospheric Administration (NOAA), for positional testing of new technology in the Global Positioning System (GPS) Receiver which tracks orbital satellites. A 1-1/2 story brick caretaker's house and garage, constructed in 1947, is seventy-feet to the south of the observatory building.

Only the observatory building, the Meridian Mark Pier, and the five monuments described above are considered to contribute to the significance of the Gaithersburg Latitude Observatory as a National Historic Landmark. The caretaker's house and garage do not contribute to the significance of the site and are excluded from this nomination.

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**8. Statement of Significance**

Certifying official has considered the significance of this property in relation to other properties:

☒ nationally ☐ statewide ☐ locally

Applicable National Register Criteria ☒ A ☐ B ☐ C ☐ D NHL Criteria 1

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)

National Register Significance:

Science

National Historic Landmark Significance:

Science, Subtheme: Physical Science,

Facet: Astronomy, Earth Science

Period of Significance

1899-1982

Significant Dates

1899-1982

Cultural Affiliation

Significant Person

Architect/Builder

Edwin Smith

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

### Summary

The Gaithersburg Latitude Observatory is significant for its association with the study of polar motion, and for its symbolic value in representing an important and long-lived program of international scientific cooperation. Established in 1899 by the International Geodetic Association, the International Polar Motion Service was a cooperative effort among scientists worldwide to study the Earth's wobble on its rotational axis. The Gaithersburg Latitude Observatory was one of six observatories around the world (in the United States, Russia, Japan, and Italy) commissioned under this program.

Between 1900 and 1960 these observatories were the best source of information on polar motion available to scientists. Data supplied by the six latitude observatories have been used in hundreds of scientific papers and studies investigating the geophysics of the earth. The observatories have enabled geodesists to better understand the size and shape of the earth and astronomers to adjust their observations for the effects of polar motion. In more practical terms, the work done by the observatories contributed to studies attempting to determine earthquake mechanisms and the elasticity of the earth, and to predict climate variations. The space program has also benefited from this work; polar motion study is necessary to determine orbit patterns of spacecraft and satellites, and aids tracking techniques used in deep space navigation.

The latitude observatories made a major contribution to science on an international scale. The research undertaken in these small, simple structures not only fueled all work done in earth motion for decades, but transcended the differences of man during times of war and international strain. Despite the location of stations in two Allied nations and two Axis nations during World War II, cooperation between the observatories continued and their important work did not cease. From its construction in 1899 until the obsolescence of man-operated telescopic observation forced its closing in 1982, the Gaithersburg Latitude Observatory played an integral role in this important scientific endeavor.

☐ See continuation sheet

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The United States Coast and Geodetic Survey Superintendent's Report for 1898-99 records an agreement reached by members of the International Geodetic Association to establish six observatories for the purpose of measuring the variations in latitude caused by the earth's wobble on its polar axis. This program, known as the International Polar Motion Service, was initiated in 1899 with the establishment of six stations, all located near the parallel of 39 degrees 08 minutes north latitude (to permit uniform computations), and were at Gaithersburg, Maryland; Cincinnati, Ohio; Ukiah, California; Mizusawa, Japan; Charjui in Russian Turkestan; and Carloforte, Sardinia, Italy. Economic constraints forced the closing of the Cincinnati observatory in 1932. The Charjui station was lost in World War I, and an observatory was substituted for it at Kitab, near Samarkand in the Soviet Union.

The Gaithersburg Observatory was constructed by Edwin Smith, Chief of the Instrument Division of the U.S. Coast and Geodetic Survey (This agency, now the National Oceanic and Atmospheric Administration, operated the International Polar Motion Service observatories in the United States.) Between 1891 and 1892 Smith had been conducting measurements of the variation of latitude on a volunteer basis from his home in Rockville, Maryland, and made nearly 1800 individual measurements on 146 nights, until his regular work forced him to discontinue his observations. However, when the International Geodetic Association allocated funds for the purchase of land in Gaithersburg in 1898, Smith was entrusted with the construction of the Gaithersburg Observatory, which began operating on October 18, 1899.

The original six observatories around the world worked in close concert carrying out a program of star study selected by Dr. Kimura, the astronomer in charge of the Mizusawa station. Twelve groups of stars, each containing six pairs of stars, were selected. Two groups of stars were observed each night at each station in accordance with a schedule of dates, time, and duration prepared by Dr. Kimura. The irregular daily motion of the earth's axis was believed to be extremely small, but the extent could be determined by the precise measurements of the stars. The six stations worked documenting the data to support latitude variations until 1914. Economic constraints forced the closing of the Gaithersburg and Cincinnati stations in 1915. During World War I contact was lost with the Charjui station. When communication with the Russian observers was resumed, the association learned that star movement data had been recorded through 1919. After World War I the Soviets continued to participate in this program with the establishment of a new station in Kitab in Uzbekistan, USSR.

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While the Cincinnati station remained closed and was eventually dismantled, the Gaithersburg Latitude Observatory resumed operations in 1932. Upon reopening, it functioned continually in cooperation with its sister observatories throughout the world until computerization rendered its use obsolete in 1982.

The scientific work conducted at the Gaithersburg Latitude Observatory illustrates the systematic approach sought by the International Geodetic Association to measure the degree of "wobble" occurring on the earth's north-south axis. Although superseded by newer technologies using satellite observations the wealth of data returned from Gaithersburg and the other five observatories is used by scientists today to determine polar motion; the size, shape and physical properties of the earth; to predict climate and earthquakes; and to aid the space program through the precise navigational patterns of orbiting satellites.

The city of Gaithersburg designated the observatory as a local historic site in December 1983. In July 1985 the site was listed in the National Register of Historic Places. The observatory property was conveyed to the city of Gaithersburg in May 1987 by the federal government, with the proviso that it be preserved as a historic monument and used for the benefit of the public. At the present time the city of Gaithersburg plans to restore the latitude observatory and build a science education center, on the site of the caretaker's house, for the use of the school children of Gaithersburg.

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### Footnotes

1. Most of the material in this form was adapted from the following source.

Kathleen C. Bowers and James Sengstack, "National Register of Historic Places Inventory-Nomination Form--Gaithersburg Latitude Observatory" (Gaithersburg, Maryland: City Planning Department, 1984).

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Bibliography

Bowers, Kathleen C. and James Sengstack. "National Register of Historic Places Inventory-Nomination Form--Gaithersburg Latitude Observatory." Gaithersburg, Maryland: City Planning Department, 1984.

Hosayama, Kennosuke. "Reorganization Plan of the International Latitude Observatory of Mizusawa," Publications of the International Latitude Observatory of Mizusawa, 1987, pp. 1-26.

Lambert, W. D. "Who Shot Those Peas," Geodetic Letter, September 1936, pp. 1-9.

Smith, Edwin and F. Schlesinger. The International Latitude Service at Gaithersburg, Md., and Ukiah, Cal., under the Auspices of the International Geodetic Association, No Place of Publication, Coast and Geodetic Survey. Appendix No. 5, 1900.

Townley, Sidney D. "Variation of Latitude," Publications of the Astronomical Society of the Pacific, August 10, 1907, pp. 210-212.

Wilcove, Raymond. "Why Mother Earth Wobbles," Environmental Science and Services Administration World, October 1967, pp. 10-11.



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### VERBAL BOUNDARY DESCRIPTION:

Beginning at a stone planted in the ground at intersection of lands of Ignatius T. Fulks, Vandelia Owen, and Philomen M. Smith whose coordinates on the Maryland State Plane Coordinate System are X=743,442.70 feet, Y=474,772.03 feet, and running thence S 46°30' W 300 feet; thence S 43°30' E 270 feet; thence N 46°30' E 444.6 feet; thence N 71°40' W 53.5 feet to a stone whose coordinates are X=743,691.26 feet, Y=474,722.99 feet; thence still N 71°40' W 252.8 feet to the place of beginning containing 2.307 acres of land more or less.

**9. Major Bibliographical Reference**

See Continuation Sheet

**Previous documentation on file (NPS):**

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # \_\_\_\_\_
- ☐ recorded by Historic American Engineering Record # \_\_\_\_\_

☒ See continuation sheet**Primary location of additional data:**

- ☐ State historic preservation office
- ☐ Other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Specify repository: \_\_\_\_\_

**10. Geographical Data**Acreage of property 2.3 acres**UTM References**

A 18 309930 4384030

Zone Easting Northing

C \_\_\_\_\_

B \_\_\_\_\_

Zone Easting Northing

D \_\_\_\_\_

☐ See continuation sheet**Verbal Boundary Description**

See Continuation Sheet

☐ See continuation sheet**Boundary Justification**

The nominated property, 2.3 acres, comprises the acreage historically associated with with the resource. The property is surrounded on the north, south, and west by modern residential development, and the grounds of a recently constructed public high school abuts it on the south.

☐ See continuation sheet**11. Form Prepared By**

name/title Harry Butowsky

organization National Park Service date May 1, 1989

street & number 1100 L Street, N.W. telephone (202) 343-8155

city or town Washington state DC zip code 20013

Historic Designation  
Application No. - HD #2Filed March 23, 1983Sign Posted September 9, 1983Ad Published September 7, 1983P.C. Referral Date September 14, 1983HDC Public Hearing September 26, 1983HDC Decision/Date Approved 11/2/83

Resolution No. \_\_\_\_\_

EXHIBIT

FENGAD-Bayonne, N. J.

HISTORIC

DESIGNATION

APPLICATION

FORM

City of Gaithersburg, Maryland

OFFICIAL USE ONLY

APPLICATION IS HEREBY MADE BY:

Gaithersburg Historic District Commission

FOR DESIGNATION OF THE PROPERTY DESCRIBED BELOW AS A:

HISTORIC SITE

HISTORIC RESOURCE

HISTORIC DISTRICT

NAME OF PROPERTY

Historic

(M: 21 -141)

Gaithersburg Latitude Observatory

And/Or Common

U. S. Department of Commerce, NOAA, NOS Gaithersburg Latitude Station

2

LOCATION

Address

DeSillum Avenue, Gaithersburg, MarylandPLEASE FURNISH THE FOLLOWING INFORMATION ABOUT THE PROPERTY(IES)  
PROPOSED FOR DESIGNATION:

DISTRICT	SUBDIVISION	NAME CODE	LOT/BLOCK	ACRES/FEET	SUBDIVISION TRACT NAME
9	201	UNITED ST. Acct. 821700	P 539/FT 341 FT 561	57,405 s.f.	
9					
9					
9					

Continue on separate sheet.

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3

# CLASSIFICATION (Circle one in each column)

OWNERSHIP	STATUS	PRESENT USE		
Public	Occupied	Agriculture	Military	Commercial
Private	Unoccupied	Educational	Park	<u>Government</u>
Both	Work in progress	Entertainment	Industrial	Transportation
Public Acquisition in Process	Assessible	Residence	Museum	Scientific
Being Considered	Yes: Restricted	Other: _____		
	Yes: <u>Unrestricted</u>			
	No			

4

## OWNER OF PROPERTY

Name: U.S. Department of Commerce, NOAA, NOS.

Telephone No. (301) 443-8600

Capt. John Bossler, Dir. NOS, 6001 Executive Blvd.

Street & Number

Rockville, Maryland

State

Zip

City, Town

5

## LOCATION OF LEGAL DESCRIPTION

Courthouse, Registry of Deeds, etc.

Liber #: TD 8

Folio #: 96

Rockville Courthouse

Street & Number

Rockville  
City, Town

Maryland  
State

20850

Zip

6

## IS PROPERTY CURRENTLY ON NATIONAL OR STATE REGISTER? If so, complete.

Title

Date

Federal

State

County

Local

Depository for  
Survey Records

City, Town

State

Zip

Note: Registered on the Montgomery County Atlas of Historic Sites.

7

## DESCRIPTION

Physical Condition (circle one)

Excellent

Fair

Ruins

Unaltered

Original Site

Good

Deteriorated

Altered

Moved

Describe the present and original (if known) exterior physical appearance.

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The Gaithersburg Observatory is a small one story building set in the middle of a two and one third acre plot. The building is 13 feet square with a gable roof. It has an entrance porch in the front and a small shed in the rear. The entrance is to the west.

The main building has a fieldstone and concrete mortar foundation. It is about 30 inches thick and descends 5 feet to a dirt floor. There is a concrete pyramid shaped pier in the center of the dirt floor that spreads to about 4 feet below the floor and tapers as it extends up through the first floor to about waist height. The observing telescopes and instruments were mounted on it. The telescopes are now in storage in Corbin, Virginia.

The building consists of one room with a closed-in entrance porch on the west end and a small shed-roofed shed extending from the north end of the east side of the building.

The main building has double walls. The inner wall consists of 4x4's overlaid with tongue and groove on the inside. There is a 9 inch space between the walls. The outer wall consists of 4x4's covered on the outside with frame louvers. The outside walls are connected to the inner walls only at the building corners, the entrance, and the door to the shed. The inner and outer wall plates appear to sit on the foundation. However, accumulated debris obscures the plate foundation area. The exterior wall ends at the ground in a beveled wood water table. There is a double floor in the main building.

The northern curtain wall has a central section about 2x3 feet, which can be lowered to expose two sliding wooden sashes in the inner wall.

The entrance to the building consists of a door in the inner wall and a louver-covered gable-roofed closed porch. The porch door is missing.

The main gable roof's ridge runs east to west. The roof consists of two sections that move apart east to west exposing the center of the building. The roof is covered by raised seam sheet metal underlaid by 3/4" sheathing.

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(Description of Physical Appearance, continued)

This is supported on 1" risers on 1" sheathing on 2x6" rafters with 1" tongue and groove for the inside ceiling. In the eaves the rafter ends are cut back and covered by a fascia board. A five pointed wooden star is mounted in the center of each gable end.

The inner walls are capped with double 2x8's having the eight inch sides vertical. The north-south sets extend about three feet out from the main building. These are capped with a 4x4 that supports the metal U-track in which the roof wheels roll. These extended plates are currently supported at their extreme extension by ceiling jacks.

Parallel to the U-track, about 6 inches into the building and down about four inches are a pair of one inch thick iron rods. These rods extend the length of the north-south plates piercing north and south walls. They are used to tie the roof sections to the building. Hand made wrought iron braces secure the roof to the rods and secure the rods to the building. The roof sections are moved from inside the building. Each section can be moved independently by a rope and pulley system.

There are two decorated ventilators, one on each roof section near the center of the building. As a part of the decoration, a metal five pointed star caps each ventilator. The west one is on the south slope while the east one is on the north slope.

About 200 feet to the north of the observatory is a green metal pagoda-shaped structure about three feet high by a foot wide, which served to align the telescope.

## SIGNIFICANCE

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Areas of Significance - check and justify below

Period

Prehistoric	Archeology-prehistoric	Community Planning	Landscape	Religion
1400-1499	Archeology-historic	Conservation	Architecture	<u>Science</u>
1500-1599	Agriculture	Economics	Law	Sculpture
1600-1699	<u>Architecture</u>	Education	Literature	Social/Humanitarian
1700-1799	Art	Engineering	Military	Theater
<u>1800-1899</u>	Commerce	Exploration/ Settlement	Music	Transportation
1900-	Communications	Industry	Philosophy	Other
			Politics/ Government	(specify)

Specific Dates *June 1899*Builder/Architect *Smith*Statement of Significance*SUMMARY*

*The Gaithersburg Latitude Observatory is historically valuable for its historic scientific uses (2-b,c), its uniqueness of architectural design and functional items (2-a,f), and its contribution to the development of Gaithersburg and the nation(1-a).*

*The Gaithersburg Observatory is one of only two such structures in the United States. Integrating the region's turn-of-the-century architectural styles and materials with the era's expanded interest and investment in scientific endeavor, it is a very special site. The observatory's moveable roof, double walls and handmade cast iron accessories combined with a carpenter gothic style make the small gable roofed structure and site a lovely as well as a functional unit.*

*DETAILS*

*During the 1890's, the International Geodetic Association devised a program to measure the wobble of the earth's rotational axis. The United States, Russia, Japan, and Italy decided to work through the Association in support of the program.<sup>1</sup> They formed the International Polar Motion Service in 1900.<sup>2</sup>*

<sup>1</sup> Raymond Wilcove, "Memories of Mr. Smith", NOAA WEEK, Vol 2 No.3 (July 1972),1.  
<sup>2</sup> Raymond Wilcove, United States Dep. of Commerce News, Environmental Science Services Adm., CGS 68-86 (Thursday, Sept. 12, 1968).

Areas of Significance - check and justify below

Period

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1900-	Communications	Industry	Philosophy	Other
			Politics/ Government	(specify)

Specific Dates *June 1899*

Builder/Architect *Smith*

Statement of Significance

SUMMARY

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<sup>2</sup> Raymond Wilcove, United States Dep. of Commerce News, Environmental Science Services Adm., CGS 68-86 (Thursday, Sept. 12, 1968).



(Statement of Significance, continued)

Six observatories -- Gaithersburg, Maryland; Ukiah, California; University of Cincinnati, Ohio; Charjui in Russian Turkestan; Carloforte, Sardinia, Italy; and Mizusawa, Iwate-ken, Japan -- were built. The program in the United States was under the control of the U. S. Coast and Geodetic Survey, a service of the Treasury Department. Since then, the Survey has become the National Ocean Survey, part of NOAA, U. S. Department of Commerce. <sup>3</sup>

Born in 1891, Edwin Smith entered the Coast and Geodetic Survey from the College of the City of New York in 1870. After a long and illustrious career of some forty years, he died on the job in 1912. In 1891 Smith was the Chief of the Instrument Division at the Capitol Hill headquarters of the Coast and Geodetic Survey. <sup>4</sup>

When the International Geodetic Association requested that the Survey cooperate in research on variations of latitude, the Superintendent instructed Smith to establish an observatory and make the necessary observations. Smith's home in Rockville, Md. happened to be in the right place. The Superintendent's annual report to Congress for 1891 states, "In pursuance of these instructions, Mr. Smith put up a temporary observatory near his residence at Rockville and, after some delays due to great pressure of work in the Instrument Shop of the office, he mounted the zenith telescope by the end of May and began regular observations June 13." <sup>5</sup>

During the following year of observations conducted on his own time, Smith made nearly 1800 individual measures for latitude on 146 nights, many in the bitter cold of the unheated observatory. The accuracy of the

<sup>3</sup> Raymond Wilcove, "Measuring Mother Earth's Shimmy, ESSA World, October 1967, 2.

<sup>4</sup> Wilcove, "Memories of Mr. Smith", 2-4.

<sup>5</sup> Ibid., 2.

(Statement of Significance, continued)

observations would have been degraded by heat. <sup>6</sup>

"After a year, Smith's regular work forced him to discontinue observations and the observatory was never used again. However, seven years later, Smith was entrusted with the task of establishing an observatory at nearby Gaithersburg, where it is still located. A man of considerable energy, he did so in 10 days. The next day, July 1, 1899, he assumed direction of the new observatory, conducting observations there until January 4, 1901, when he turned it over to another astronomer." <sup>7</sup>

"His work at Gaithersburg was also apparently voluntary, and unlike that at Rockville, he sometimes failed to get home at night. To enable him to keep in touch with his family, a phone was installed in the Rockville home. "It was one of the first phones in Rockville," said Miss Lucy, his daughter." (8) To be of use there must have also been a phone installed in the observatory. If this was not the first phone in Gaithersburg, it must have been a very early one.

Funds to obtain the land and build the observatory in Gaithersburg came from the International Geodetic Association. <sup>8</sup>

Of the six original observatories, Ukiah, Carloforte, and Mizusawa, constituting a bare minimum of stations necessary to determine the pole's displacement, have continued to function without interruption. <sup>9</sup>

"As an economy measure, Cincinnati and Gaithersburg were discontinued in 1914 and 1915. During World War I, all trace was lost of Charjui, but it was found that it had functioned until 1919. Once the station had to be moved because

<sup>6</sup> Ibid., 2.

<sup>7</sup> Ibid., 2.

<sup>8</sup> Ibid., 2.

<sup>9</sup> Report of The Superintendent of The Coast and Geodetic Survey, Showing The Progress of The Work From July 1, 1899, to June 30, 1900; Government Printing Office, 1901; Appendix No. 2, 149-150.

<sup>10</sup> Wilcove, "Measuring Mother Earth's Shimmy", 4-5.

(Statement of Significance, continued)

a river several miles distant changed its course and threatened it. Kitab was finally substituted for Charjui and in 1932 the Gaithersburg Station reopened."<sup>11</sup>

The Gaithersburg observatory continued to function until the last observer, Mr. Mac G. Currin retired in 1982.<sup>12</sup>

In 1968, the Japanese City of Mizusawa had a population of some 40,000.<sup>13</sup> Besides its latitude observatory the City was proud of the cast

iron bells that are a traditional product.<sup>14</sup> In that year the Mayor of Mizusawa wrote a letter dated June 28, to the Mayor of Gaithersburg. He said in part: "In advance of the coming hot season, I presented the Mizusawa Observatory with a hanging bell that tinkles in the wind hoping the bell would be able to comfort the staffs who are enthusiastically engaged in observation and research works. And I am much pleased to know that they are enjoying a cool and lovely timbre of tinkle.

"I am sending you a package of two hanging bells....., one for the Observatory and the other for you.....

"Dear Mayor, I would like to have a close tie of friendship between your City and ours, both as the cities of international scientific research works and to promote it with our good will...." <sup>15</sup>

The bells were presented to Harold Morris, the Mayor of Gaithersburg and Rear Admiral Don A. Jones, the director of the Coast and Geodetic Survey on September 16, 1968. Rear Admiral Jones in turn presented it to astronomer A. W. Helm, Chief of the Gaithersburg Latitude Observatory. <sup>16</sup>

<sup>11</sup> Ibid., 4.

<sup>12</sup> Grace Sollers, Interview, National Ocean Survey, Jan. 1983.

<sup>13</sup> Wilcove, U. S. Dep. of Commerce NEWS., 1.

<sup>14</sup> Gaithersburg Gazette, Sept. 19, 1968, 1. (An Unsigned Story)

<sup>15</sup> C. Takahashi, Letter to Mayor of Gaithersburg, 28 June 1968.

<sup>16</sup> Gaithersburg Gazette.

M:21-141

9 SURROUNDING LAND USES

North Residential  
East Public High School  
South Residential  
West Residential

10 INFORMATION SOURCES

See Below.

11 ATTACHMENTS

Exterior Black and White Views

Two (2) Location Maps - scale 1" = 200'

(10) "Japanese Give Bells to Country." Frederick, MD. NEWS,  
(September 17, 1968), E-10, 166.

"Japanese Give Bells to Country." Frederick, MD. POST,  
(September 17, 1968), M-13, 133.

"Double-Bell Ceremony." Gaithersburg Gazette, IX  
(September 19, 1968), 1.

Gaithersburg The Heart of Montgomery County. Gaithersburg, Maryland.  
by the City of Gaithersburg, 1978.

Hoar, Dennis. NOAA technician and Gaithersburg Observatory caretaker.  
National Ocean Survey, Rockwall Building, Rockville, Maryland.

Wilcove, Raymond D. "Measuring Mother Earth's Shimmy." ESSA WORLD,  
(October 1967), 2.

Sollers, Grace. Historian of The National Ocean Survey,  
B14 Rockwall Building, Rockville, Maryland, Interview (January 1983).

Reports of The Superintendent of the United States Coast and Geodetic Survey,  
Showing The Progress of Work  
From July 1, 1890 to June 30, 1891  
From July 1, 1898 to June 30, 1899  
From July 1, 1899 to June 30, 1900  
From July 1, 1900 to June 30, 1901.

6 March 83

MARYLAND HISTORICAL TRUST  
21 STATE CIRCLE  
SHAW HOUSE  
ANNAPOLIS, MARYLAND 21401

HISTORIC SITES SURVEY FIELD SHEET  
Individual Structure Survey Form

*DENNIS HOAR - Living here on the grounds - Home 977-1136  
dli: 943-8316 LT08 F98*

COUNTY:	MONTGOMERY
TOWN:	CATHEMERSBURG
LOCATION:	NORTH END of DESELLUM BVD. CATHEMERSBURG, Md. 100 DeSellum
COMMON NAME:	CATHEMERSBURG OBSERVATORY
FUNCTIONAL TYPE:	
OWNER:	NOAA, OCEAN SURVEY
ADDRESS:	CAPT. JOHN BOESLER 6001 EXECUTIVE SQ. SW. PACIFIC, MD.
ACCESSIBILITY TO PUBLIC:	Yes (X) No ( ) Restricted ( )
LEVEL OF SIGNIFICANCE:	Local (X) State (X) National (X)

SURVEY NUMBER:	M; 21 - 141
NEGATIVE FILE NUMBER:	
UTM REFERENCES:	Zone/Easting/Northing
U.S.G.S. QUAD. MAP:	
PRESENT FORMAL NAME:	CATHEMERSBURG LATITUDE OBSERVATORY
ORIGINAL FORMAL NAME:	
PRESENT USE:	
ORIGINAL USE:	Navigation / Communication
ARCHITECT/ENGINEER:	
BUILDER/CONTRACTOR:	
PHYSICAL CONDITION OF STRUCTURE:	Excellent ( ) Good (X) Fair ( ) Poor: ( )
THEME:	SCIENTIFIC
STYLE:	
DATE BUILT:	JUNE 21-30, 1899

GENERAL DESCRIPTION:

Structural System

- Foundation: Stone(X) Brick( ) Concrete(X) Concrete Block( )
- Wall Structure
  - Wood Frame: Post and Beam( ) Balloon( )
  - Wood Bearing Masonry: Brick( ) Stone( ) Concrete( ) Concrete Block( )
  - Iron( ) D. Steel( ) E. Other:
- Wall Covering: Clapboard( ) Board and Batten( ) Wood Shingle( ) Shiplap( ) Novelty( ) Stucco( ) Sheet Metal( ) Aluminum( ) Asphalt Shingle( ) Brick Veneer( ) Stone Veneer( ) *BRICK WALLS*  
Bonding Pattern: Other:
- Roof Structure
  - Truss: Wood(X) Iron( ) Steel( ) Concrete( )
  - Other:
- Roof Covering: Slate( ) Wood Shingle( ) Asphalt Shingle( ) Sheet Metal(X)  
Built Up( ) Rolled( ) Tile( ) Other: *RAISED SEAM*
- Engineering Structure:
- Other:

Appendages: Porches( ) Towers( ) Cupolas( ) Dormers( ) Chimneys( ) Sheds( ) Ells( ) Wings ( ) Other:

Roof Style: Gable(X) Hip( ) Shed( ) Flat( ) Mansard( ) Gambrel( ) Jerkinhead( ) Saw Tooth( ) With Monitor( ) With Bellcast( ) With Parapet( ) With False Front( ) Other:

Number of Stories: 1

Number of Bays: 1 x 1

Approximate Dimensions: 12' x 13'

Entrance Location: WEST END

THREAT TO STRUCTURE: No Threat( ) Zoning( ) Roads( ) Development( ) Deterioration(X) Alteration ( ) Other: <i>LOSS OF BUDGET BY Owner/Home, To GSA</i>	LOCAL ATTITUDES: Positive(X) Negative( ) Mixed( ) Other:
---	--

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ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Field stone and concrete masonry foundation approx. 13' square x 5' deep with a concrete  
 reinforced shaped pier in the center of the dirt floor that spreads to about  
 4' from the pier below the floor. The building consists of one room with a closed  
 entrance porch in the west end and a small shed roofed shed extending  
 from the north end of the east side of the building. The main building has double walls.  
 The inner wall consists of 4x4's overlaid with tony and grease on the inside. There  
 is a 9" space to the outside wall which consists of 4x4's covered on the outside with  
 framed louvers. The outside walls are connected to the inner walls only at the  
 building corners and entrance and door to shed. The inner and outer wall plates appear  
 to sit on the foundation. However, accumulated debris obscures the plate foundation area. The  
 exterior wall ends at the ground in a beveled wood water table. There is a double  
 floor on the inside. The northern curtain wall has a central section about 2' x 3' which -

RELATED STRUCTURES: (Describe)



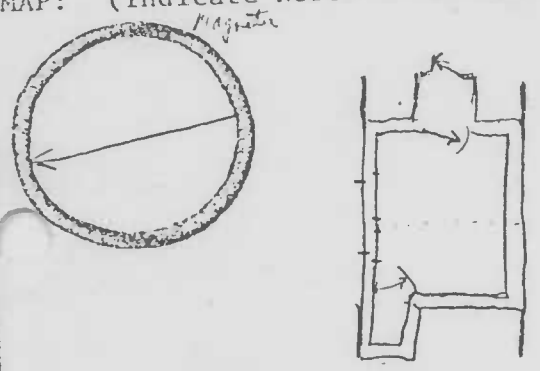
About 200 feet to the north of the observatory is a green metal pagoda shaped structure  
 about three feet high by a foot wide which served to align the telescopes.

Remains of green metal

STATEMENT OF SIGNIFICANCE:

REFERENCES:

MAP: (Indicate North In Circle)



SURROUNDING ENVIRONMENT:

- Open Lane( ) Woodland( ) Scattered Buildings( )
- Moderately Built Up(X) Densely Built Up( )
- Residential(X) Commercial( )
- Agricultural( ) Industrial( )
- Roadside Strip Development( )
- Other:

RECORDED BY:

S. J. ... MacFarland

ORGANIZATION:

DATE RECORDED: 11 1 62

# Easement

## GAITHERSBURG HISTORIC SITES SURVEY FIELD SHEET

ADDRESS 100 DESELLUM AVENE  
County: Montgomery  
Gaithersburg

MHT # M-21-141

LIBER TD8, FOLIO 98

SURVEY # 022  
LOT -, BLOCK -

OWNER: NOAA  
ADDRESS: -  
CITY: -

PRESENT USE: vacant  
ORIGINAL USE: observatory  
BUILDER: Charles Smith

STYLE: Late Victorian

DATE BUILT: 1899

PHYS. COND: fair

### GENERAL DESCRIPTION

#### STRUCTURAL SYSTEM:

FOUNDATION: stone  
WALL STRUCTURE: Balloon  
WALL COVERING: novelty siding

#### ROOF CONSTRUCTION:

ROOF STRUCTURE: Wood Truss  
ROOF COVERING: raised seam tin  
ROOF STYLE: gable  
EAVES: -  
CHIMNEYS: -

#### APPENDAGES:

ADDITIONS: -  
ELLS: -  
PORCHES: main entrance, gable roofed  
SUPPORTS: -  
OUTBUILDINGS: -

STORIES: 1

BAYS: 1 X 1

APPROX DIMENSION: 13 X 13

#### ENTRANCES:

LOCATION: west facade  
DESCRIPTION: replaced

THREAT: deterioration/redevel.

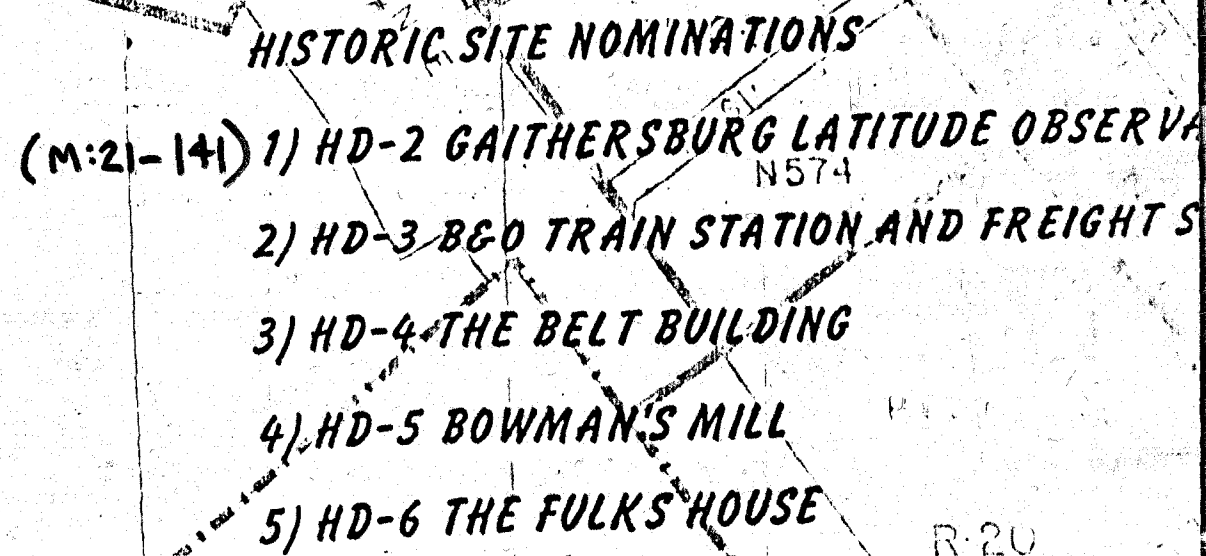
SURROUNDINGS: residential

M:21-141

DESCRIPTION: Please see attached National Register Nomination form for complete description of this property.

Recorded by:  
C. MacFarland  
March 6, 1983  
Historic Inventory Task Force

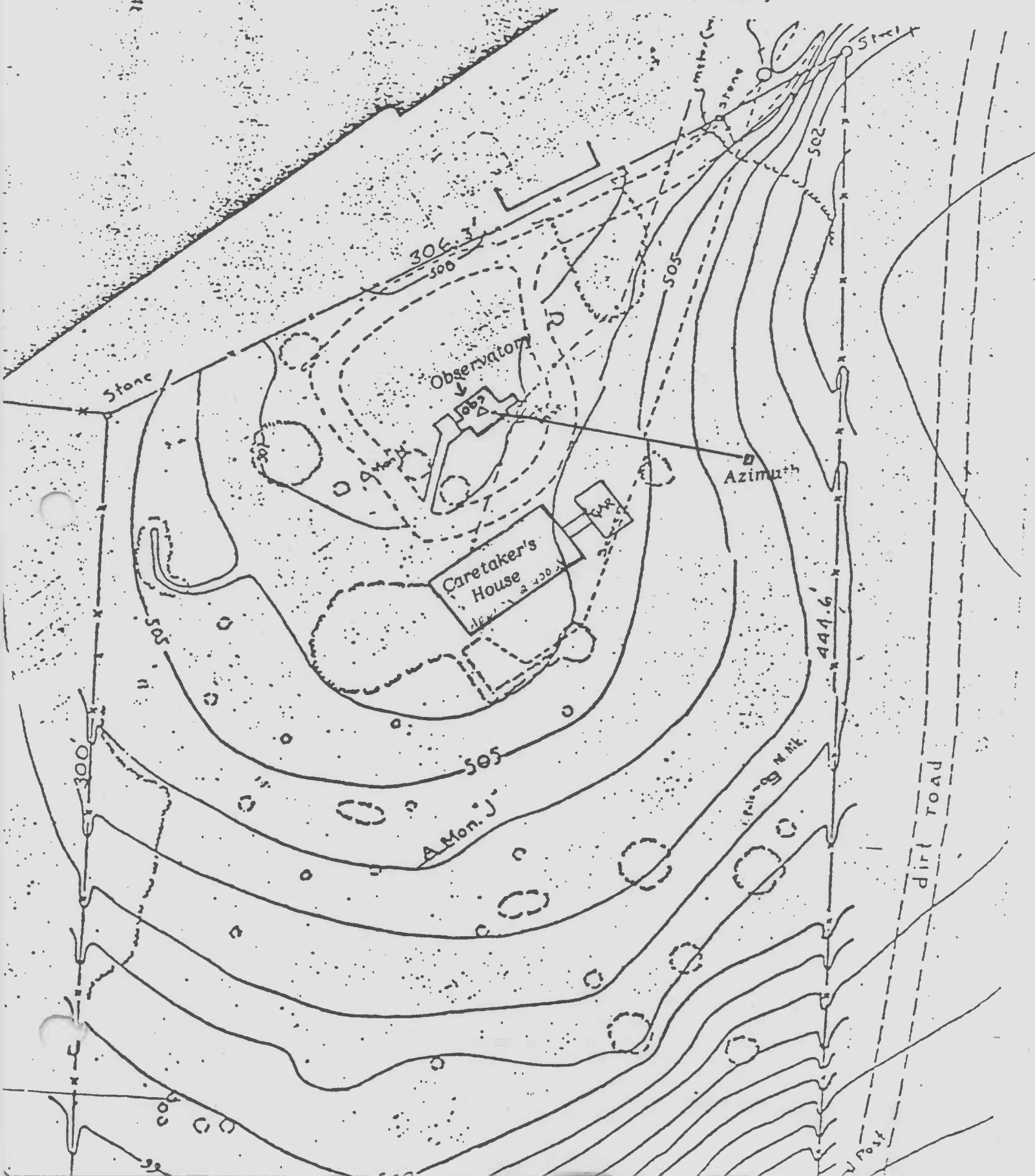




M:21-141

2.3 acres

Topo showing location of caretaker's  
house in relation to Observatory and Azimuth  
100 DeSillum Avenue  
Gaithersburg, Maryland  
Montgomery County



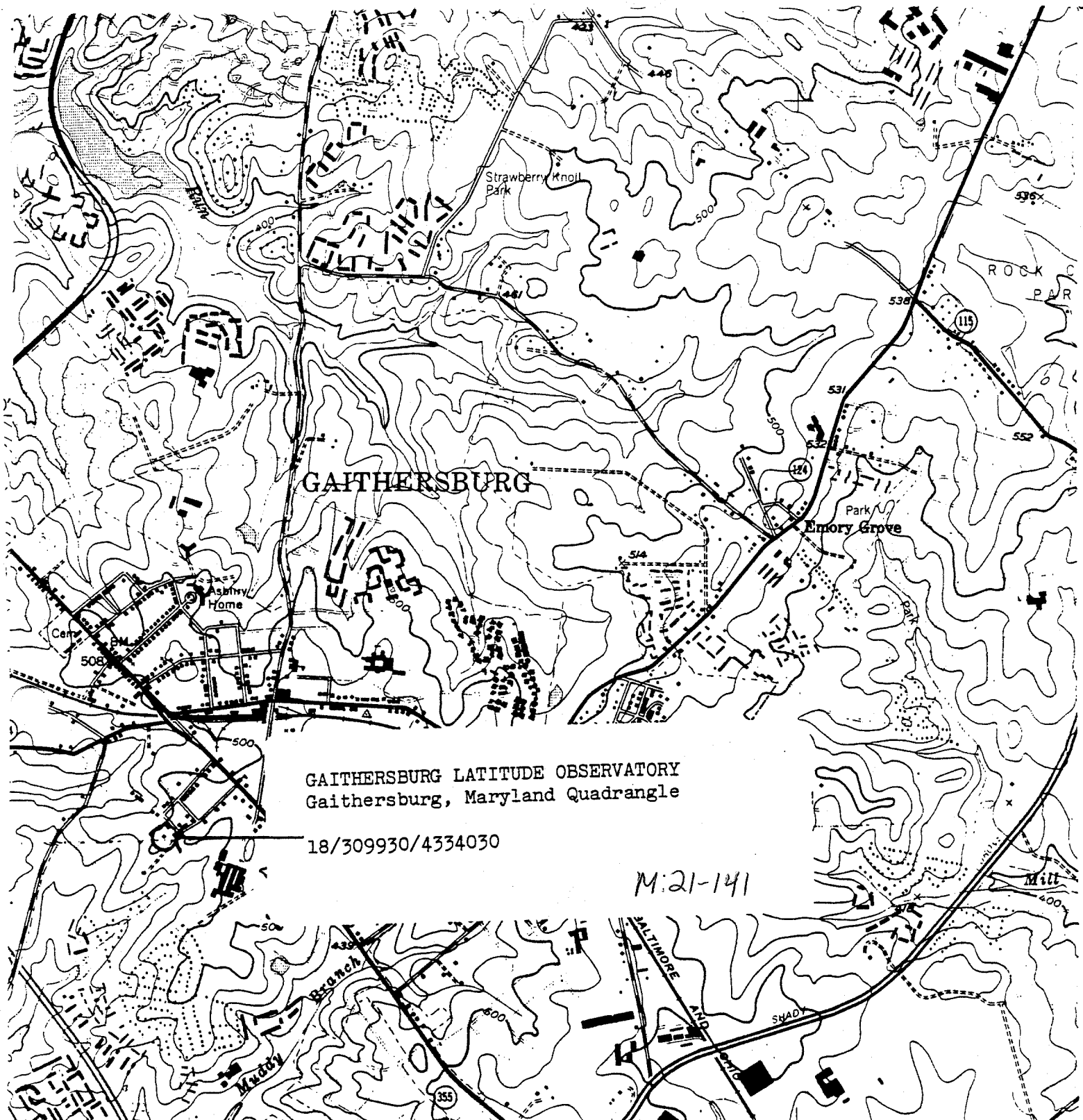
**BOUNDARY SURVEY & EASEMENTS**  
**UNITED STATES OF AMERICA**  
 LIBER 759, FOLIO 380

**GAITHERSBURG LATITUDE OBSERVATORY**  
 GAITHERSBURG  
 MONTGOMERY COUNTY, MARYLAND  
 SCALE: 1" = 40 FEET  
 SEPT 27, 1977

**AEPA ARCHITECTS ENGINEERS**  
 A PROFESSIONAL CORPORATION  
 2421 PENNSYLVANIA AVENUE, N.W.  
 WASHINGTON, D.C. 20037  
 (202) 692-0300  
 A. H. AND C. E. BENTLEY  
 BURN THOMPSON ENGINEERS

**Surveyor's Statement, Certificate and Notes**

"All field and office work was strictly made under my supervision. The surveyor assumes the owner and its prospective purchaser agree on the..."



GAITHERSBURG LATITUDE OBSERVATORY  
Gaithersburg, Maryland Quadrangle

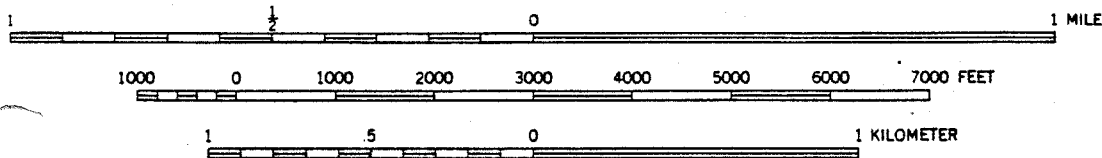
18/309930/4334030

M:21-141

ROCKVILLE 3.5 MI.  
ON D. C. (WHITE HOUSE) 20 MI.

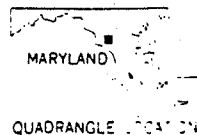
(ROCKVILLE)  
5562 11 SW  
SCALE 1:24000

DERWOOD 1.2 MI.  
ROCKVILLE 3.5 MI.



CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



Revisions shown in purple  
Survey from aerial photography  
This information not for sale  
Boundary lines shown  
Information available from  
Purchase of map

M.21-141



Gaithersburg Latitude Observatory  
Gaithersburg, Maryland  
Exterior View from the South, circa 1910  
Photo Credit: City of Gaithersburg

M.21-141

M:21-141



M:21-141

Gaithersburg Latitude Observatory  
Gaithersburg, Maryland  
Interior of the observatory with  
telescope and observer, circa 1910  
Photo Credit: City of Gaithersburg



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Gaithersburg Latitude Observatory  
Gaithersburg, Maryland  
Exterior View from the West, 1983  
Photo Credit: City of Gaithersburg

M.21-141



(1)

Gaithersburg Latitude Observatory  
Gaithersburg, Maryland  
Exterior View from the East, 1983  
Photo Credit: City of Gaithersburg

M.21-141

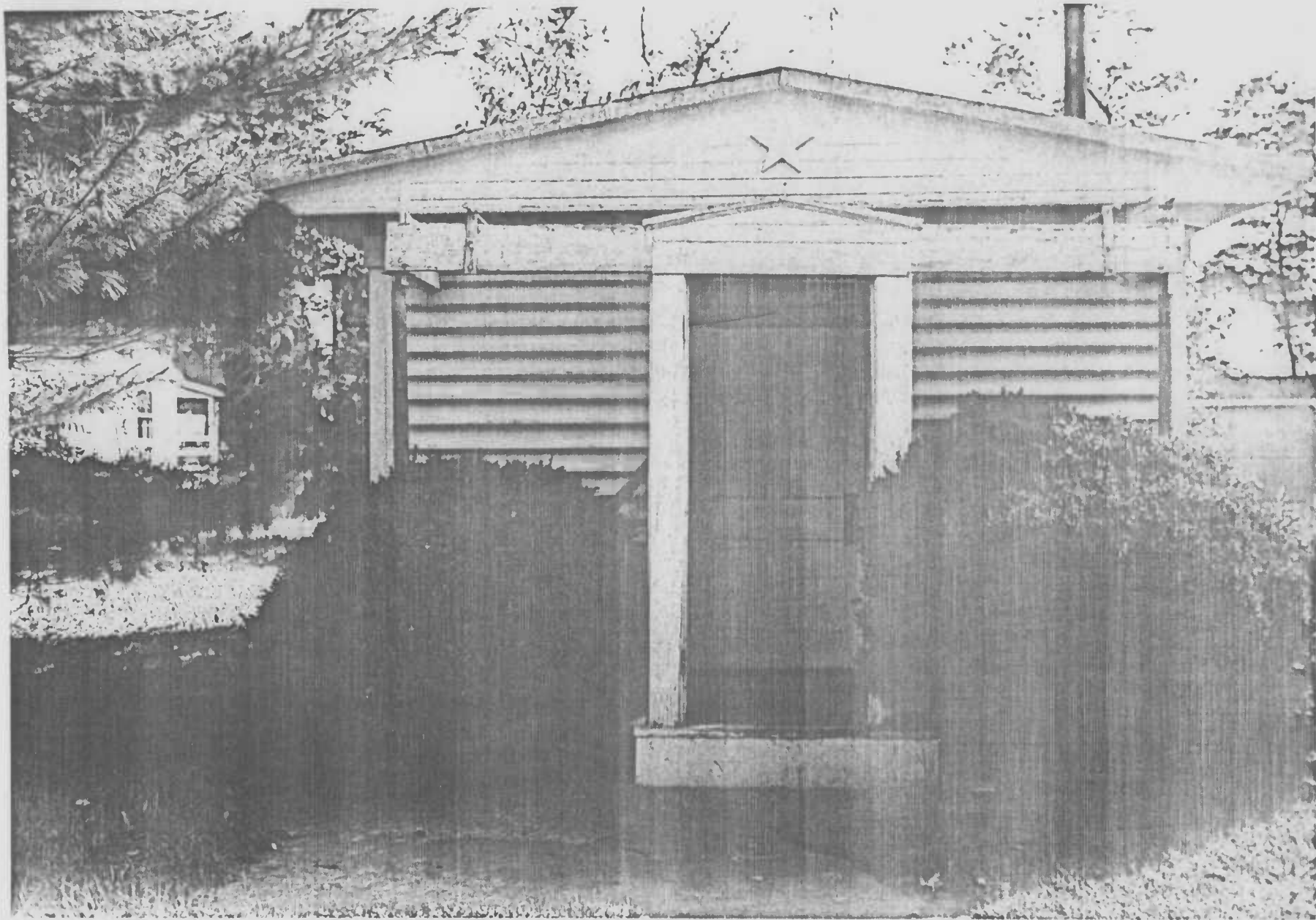
M:21-141



M:21-141

Gaithersburg Latitude Observatory  
Gaithersburg, Maryland  
Meridian Marker, circa 1983  
Photo Credit: City of Gaithersburg

M:21-141



M:21-141

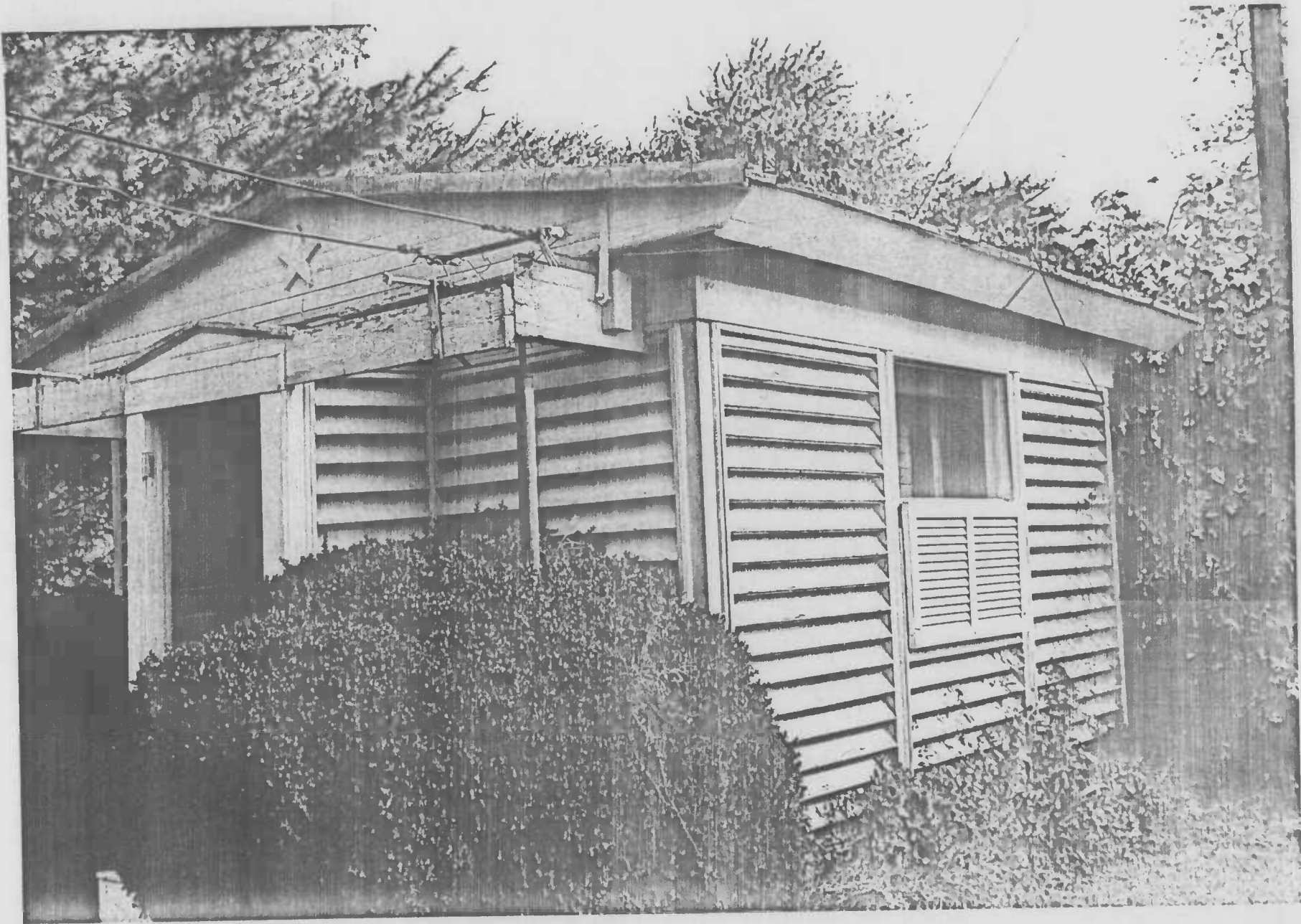


EXHIBIT  
HD-2  
#4  
1/26/83  
HDC  
PEN/CAD-Bayonne, N. J.



EXHIBIT  
100-2  
JAN 11 1962

M:21-141

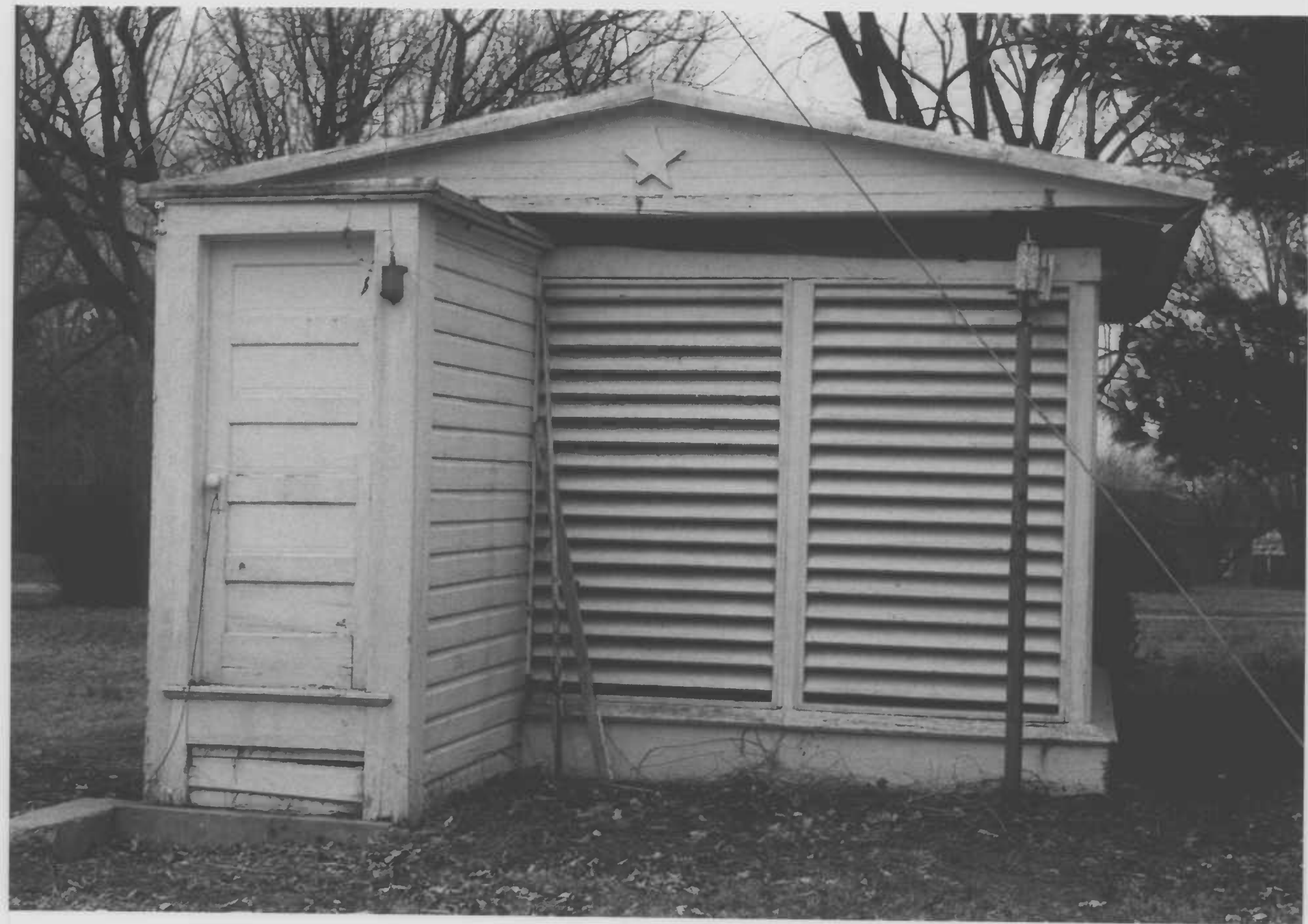




GAITHERSBURG LATITUDE OBSERVATORY  
Montgomery County, Maryland  
Photo: Trudy Walton  
Neg loc: City Hall, Gaithersburg, MD  
27 February 1984  
west elevation

2/2

M:21-141



GAITHERSBURG LATITUDE OBSERVATORY  
Montgomery County, Maryland  
Photo: Trudy Walton  
Neg loc: City Hall, Gaithersburg, MD  
27 February 1984  
east elevation of building

m: 21-141

1/2

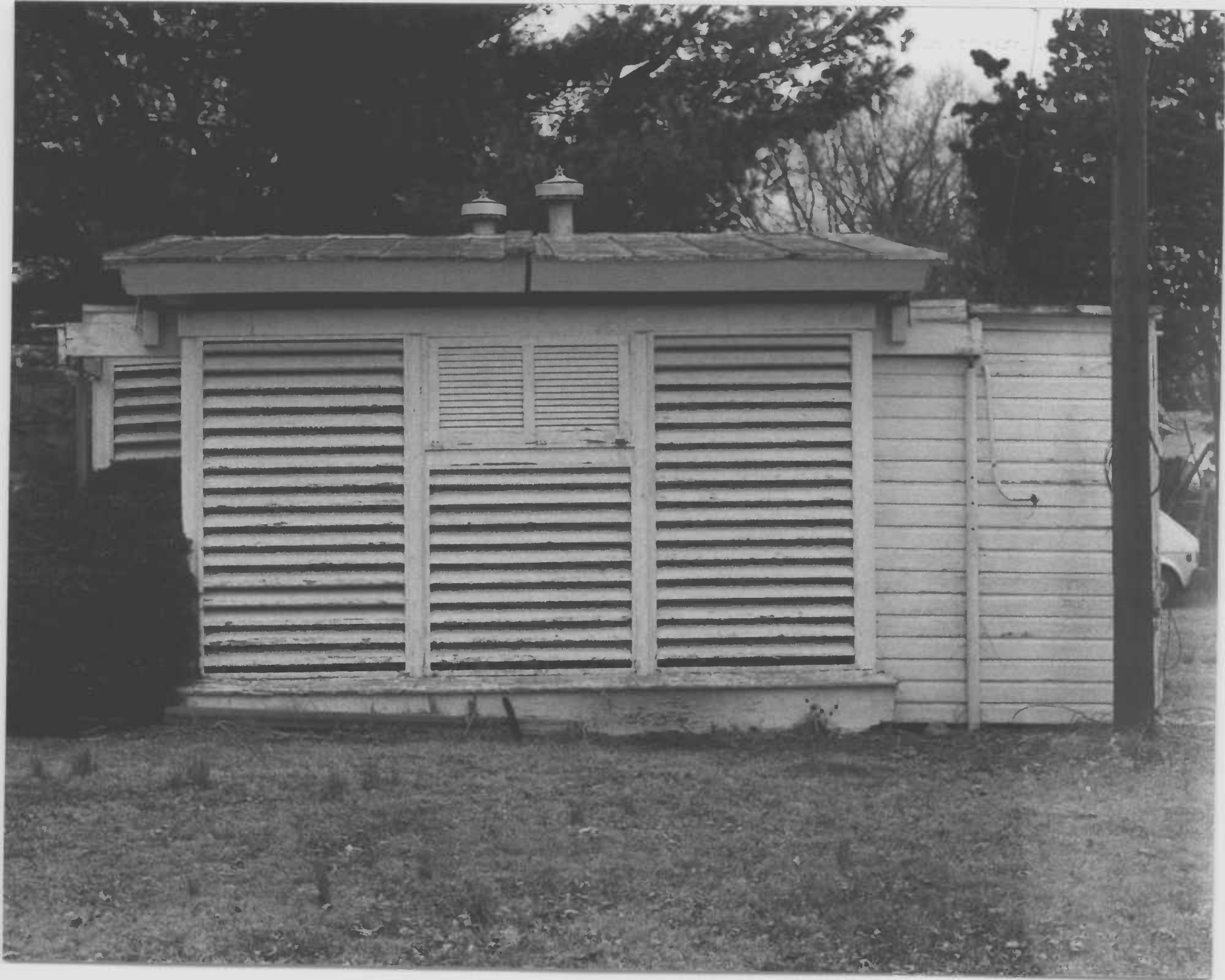


GAITHERSBURG LATITUDE OBSERVATORY  
Montgomery County, Maryland  
Photo: Trudy Walton  
Neg loc: City Hall, Gaithersburg, MD  
27 February 1984  
northeast elevation of building

1/2

M: 21-14







GAITHERSBURG LATITUDE OBSERVATORY  
Montgomery County, Maryland  
Photo: Trudy Walton  
Neg loc: City Hall, Gaithersburg, MD  
27 February 1984  
south elevation of building

2/2

m: 21-141



1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. Trudy Walton
4. 09 January 1984
5. Gaithersburg City Hall
6. The Observatory Azimuth Pier
7. 2/2

*m! 21- 14/*



1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. Trudy Walton
4. 09 January 1984
5. Gaithersburg City Hall
6. Interior of Pulley System
7. 1/2

*M. 21-141*



1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. Trudy Walton
4. 09 January 1984
5. Gaithersburg City Hall
6. Interior of Telescope Mount
7. 2/2

m: 21-141





1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. James Sengstack
4. 05 December 1983
5. Gaithersburg City Hall
6. Northeastern elevation, photographer facing southwest
7. 2/2

*m: 21-141*



1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. Trudy Walton
4. 09 January 1984
5. Gaithersburg City Hall
6. Southern elevation, photographer facing north
7. 2/2

*m: 21-141*



1. The Gaithersburg Latitude Observatory
2. 100 DeSillum Avenue, Gaithersburg, Maryland
3. James Sengstack
4. 05 December 1983
5. Gaithersburg City Hall
6. Southern elevation, photographer facing north
7. 2/2

m: 21-141